

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested. Claims 23-28, 30-34, and 36-45 are pending, Claims 23, 43 and 45 having been amended, and Claims 29 and 35 having been canceled by way of the present amendment.

In the outstanding Office Action the drawings were objected to; Claim 37 was rejected under 35 U.S.C. §112, first paragraph; Claims 35 and 37 were rejected as being indefinite; Claims 23-39 and 41-45 were rejected as being unpatentable over Leibinger et al. (U.S. Patent 4,403,205, hereinafter Leibinger) in view of Elton et al. (U.S. Patent 4,853,565, hereinafter Elton); and Claim 40 was rejected as being unpatentable over Leibinger in view of Elton and in further view of Thomas (U.S. Patent 4,400,675).

In reply, Figure 1 has been amended, to indicate that selected of the strands 5 are insulated. As shown, only a minority of the strands are uninsulated and an electrical contact with one another. Furthermore, Figure 1 has been amended as well as the specification to show the shield 500 and sheath 5000, which were the subject of original Claim 37, for example.

The invention defined by Claim 23, as amended, is a transformer that includes a high voltage winding and a low voltage winding, each being magnetically permeable and having a flexible conductor configured to contain an electric field. The turns of the high voltage winding are intermixed with the turns of the low voltage winding. Claim 23 has been amended to clarify that the flexible conductor includes a central conductor that includes a plurality of strands of wire, a portion of which being insulated strands such that, at most, only a minority of the strands are in electrical contact with uninsulated strands. Support for the amendment to Claim 23 is found in original Claims 29, 35 and the specification at page 2, lines 24-25, for example. Thus, no new matter is added.

An attribute of the present invention is that it is able to suppress short circuit forces in a dry transformer. By having a magnetically permeable winding, it is possible for eddy currents to develop in the specific strands, thereby increasing the likelihood of a partial discharge, and creating thermal stress on the transformer. However, by including insulated strands in the central conductor, such that at most only a minority of the strands are in electrical contact with other of the strands that are not insulated, it is possible to suppress the eddy currents so that inefficiencies associated with the eddy currents and thermal losses associated with the eddy currents are kept to a minimum.

The outstanding Office Action asserts that a combination of Leibinger in view of Elton renders obvious the invention defined by Claim 23. Applicants respectfully traverse the rejection. The outstanding Office Action asserts that Leibinger discloses the invention defined by Claim 23 except for the flexible conductor, and asserts Elton for this feature. Even if such a combination were feasible (and it is Applicants' contention that there is no suggestion, or motivation to combine the cable of Elton with the transformer of Leibinger), the combination would not teach or suggest all of the elements defined by amended Claim 23, Claim 23 now requires that the center conductor comprise a plurality of strands of wires, a portion of which being insulated strands such that at most only a minority of the strands are in electrical contact with other of the strands that are not insulated. This feature is absent in either Leibinger or Elton, and therefore no matter how these two references are combined the combination of references would not create a *prima facie* case of obviousness.

Leibinger is directed to a circuit arrangement for controlling transformer current, and provides no disclosure regarding the specific windings. Nevertheless, the outstanding Office Action proposes to replace the windings in Leibinger with the embodiment of Figure 7 from Elton. However, the embodiment of Figure 7 in Elton discloses a cable having only strands that are uninsulated (strands 102). Because the cable in Elton is not used in a transformer

setting, the value of minimizing eddy currents from induced fields would not be present. Therefore, it is respectfully submitted that even if a tertiary reference would be found (and none has so far), there would be lack of motivation for modifying the cable in Elton (to include insulated strands) for inclusion in the device in Leibinger to arrive at the presently claimed invention, unless improper hindsight reasoning were the basis for making the combination.

Independent Claims 43 and 45 have been amended to include the structural feature discussed above regarding the use of insulated strands in the conductor. Thus for similar reasons given above for Claim 23, it is respectfully submitted that Claims 43 and 45 also patentably define over the asserted prior art. Each of the other claims depends from either Claim 23 or Claim 43, and therefore are patentable for at least the reasons discussed above with regard to Claims 23 and 43, respectively.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 23-28, 30-34 and 36-45, as amended, is definite and patentably distinguishing over the prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

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